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AUTHOR Purkey, William Watson; And Others
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ABSTRACT

The purpose of the Florida KEY is to provide teachers with a single instrument to infer self-concept as learner of students in grades 1-6. The KEY identifies selected behaviors of students who seem to possess positive and realistic self-concepts in the area of school success. The KEY contains 23 interrogative items that describe student behavior in a classroom. Factor analyses have supported the original factor structure of relating, asserting, investing, and coping. Each teacher completes the Florida KEY in relation to each student. Each item of the KEY is rated in accordance with a 0-5 point scale. Low scores on any of the four factors may indicate students at risk who require the teacher's assistance. Validity, reliability, and factor structure studies of the KEY are described. (BW)

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THE FLORIDA KEY

AN INSTRUMENT TO INFER STUDENT SELF-CONCEPT AS LEARNER

IN GRADES ONE THROUGH SIX

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MANUAL

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The Florida Key
Administration
Scoring
Interpretation of Results
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PREPARED BY

William Watson Purkey - University of North Carolina at Greensboro

Bob N. Cage - University of Mississippi, University, Mississippi

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THE FLORIDA KEY

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INTRODUCTION

> A person who doubts himself is like a man who would enlist in the ranks of his enemies and bear arms against himself. He makes his failure certain by himself being the first person to be convinced of it.
>
> Alexandre Dumas

Many in education, psychology, sociology, and related fields have identified the significant relationship between self-concept and school achievement. On the basis of available research it now appears that students who doubt their ability to learn in school carry with them a tremendous handicap.

The purpose of the Florida KEY is to provide teachers and related professionals with a single instrument to infer self-concept as learner of students in grades one through six. This instrument can be scored easily and quickly by classroom teachers without previous training and provides them with an insight into students' perceptions of themselves as learners. The KEY identifies selected behaviors of students who seem to possess positive and realistic self-concepts in the area of school success. Identification of these selected behaviors was based on the research findings of Purkey, Cage, and Graves (1973) and Fahey (1983).

An important advantage of the Florida KEY is that it avoids the problems involved with reliance on self-report (professed self-concept). The KEY is unobtrusive, non-reactive, and does not depend on self-report as do most instruments designed to measure self-concept. There are significant differences between self-concept and self-report. Self-concept consists of all those perceptions which an individual holds to be true regarding his or her personal existence. Self-report

is what an individual is able, willing, or can be tricked or forced into professing about oneself. Self-concept and self-report are by no means the same (Combs, 1962). The Florida KEY provides a way for teachers to infer students' self-concepts as learners without relying on self-reports This provides additional insights into how students see themselves and may have important implications for improving pupil performance in school (Purkey, 1970; Purkey, 1978; Purkey & Novak, 1984).

Importance of self-concept

Over the past several decades the concept of self has become a central part of many human personality theories and the major basis for numerous programs in education. Many authors and researchers have identified self-concept as a central ingredient in understanding human personality and behavior. Among the most graphic accounts of how self-concept is acquired, modified, and in turn modifies future experiences are those of Coopersmith (1967), Gergen (1971), Hamachek (1978), Jourard (1971), Maslow (1962), and Rogers (1951). These and numerous other works provide considerable evidence that self-concept is an essential and influential part of human personality and individual behavior.

In light of present knowledge it appears that self-concept is learned. The beginnings of this learning take place in the earliest months of life. Gradually, infants begin to relate to significant others in their lives. These early relationships are the matrix in which an awareness of self as an independent agent takes place. Within the first few years of life, the child develops a relatively stable self-concept and is busy referring to his or her personal existence as "I" or "me." This early and rapid development of a complex "theory" of one's personal existence is a remarkable feat.

During the early years of development, each child is surrounded by countless signal systems. "Inviting" or "disinviting" messages inform the child of his or

her abilities, values, and autonomy, or the lack thereof. Each experience the child has, and each interpretation he or she makes of that experience, influences the development of the child's self-concept, positively or negatively. By the time a child reaches school age, his or her self-concept is already developed and functioning. All later experiences will be filtered through this self-concept. As this filtering process takes place, the self-concept itself is gradually altered. A major way the self-concept is altered is through the addition of self-concept as learner.

Importance of self-concept as learner

As vital as early preschool experiences are in creating self-concept, school experiences should not be underestimated. When children enter schools they are expected to undertake a major new identity, and they assume this identity with greater or lesser success. The result is an often overlooked aspect of self-concept theory: self-concept as learner. Self-concept as learner is that part of a person's "global self"--all the attitudes, opinions, and beliefs that a person holds to be true of his or her personal existence--that relates directly to school achievement.

Most self-concept researchers have tended to focus on global self-concepts rather than on situation-specific self-images, such as self as athlete, self as family member, self as learner, or self as friend. By observing only global self-concept--which is many-faceted and contains diverse, even conflicting sub-selves--investigators have underestimated the importance of those sub-systems (Purkey, Rahein, & Cage, 1983).

Students' perceptions of themselves as learners apparently serve as personal guidance systems in directing their behavior in school. This aspect of self-concept theory plays a critical role in determining students' academic performances. Thus, the ability to infer how students see themselves as learners, without

relying on self-report or student awareness of being evaluated, is an important skill for teachers to use in developing their sensitivity and appreciation of the internal world of the developing child.

THE FLORIDA KEY

The Florida KEY provides educators and other professional helpers with a means to infer student self-concept as learner that can be:

1. quickly scored by a classroom teacher without previous training or special skill.
2. used to provide the teacher with an insight into the student's perception of oneself as a learner.
3. applied in a way which avoids reliance on self-report (professed self-concept).

Thus, the KEY is easy to use, provides insights into how students view themselves as they relate to school, and avoids reliance on professed self-concept.

Development of the Instrument

The KEY was developed by identifying typical classroom behaviors exhibited by those students considered by teachers to possess positive and realistic self-images as learners (Purkey, Cage, & Graves, 1973). Two procedures were involved in the development of the KEY. The first was item identification and pilot testing. A random sample of elementary teachers was asked to list and later evaluate a large number of student classroom behaviors in terms of their validity and reliability in inferring pupil self-concepts as learners. From these activities, behavioral acts were isolated, described in simple written form, and juxtaposed with a six-point rating scale to measure perceived frequency of occurance. Data were collected and analyzed on elementary students in Florida and Oklahoma, in grades three through six, and four factor dimensions were identified through statistical analysis. These factors are relating, asserting, investing, and coping. In the second

procedure, pupil populations of two additional elementary schools were evaluated by teachers, followed by other school populations. Approximately 1,000 students participated in the preliminary data collection phase.

Instrument Content

The KEY contains 23 interrogative items that describe student behavior in a classroom. Contextually, the items identify behaviors that occur more often by students who have a good self-concept as learner. Factor analyses by Fahey (1983) have supported the original factor structure of relating, asserting, investing and coping identified by Purkey, Cage, and Graves (1973). A description of each factor follows.

I. RELATING reflects a basic trust in people. The student who scores well on relating probably identifies closely with classmates, teacher, and school. He or she thinks in terms of our school, our teachers, my classmates; as opposed to the teacher, that school, those students. Being friendly comes easy for this student, and he or she is able to take a natural, spontaneous approach to school life. The student finds ways to express feelings of frustration, anger, and impatience without exploding at the slightest problem.

II. ASSERTING suggests a trust in one's own value. The student has learned to see himself or herself as having some control over what happens to oneself in school. The student who does well on asserting is willing to challenge authority to obtain a voice in what takes place in the classroom. There seems to be present in this person a learned process of affirmation: to claim one's integrity, to compel recognition. (An individual scoring high on asserting would probably announce to one and all that "the emperor has no clothes on!")

III. INVESTING implies a trust in one's potential. The person who feels good about oneself as a learner is more willing to risk failure or ridicule. A high score on investing suggests an interest in originality, a bent towards creativity, and a willingness to try something new. Students who score high in investing volunteer in class, although their good intentions sometimes backfire. By investing, the individual enjoys a release of emotional tension and exhibits an attitude of excitement and wonder.

IV. COPING indicates a trust in one's own academic ability. The student who scores well on coping is interested and involved in what happens in the classroom. Pride is taken in school work and attempts are made to obtain closure. Students who score high in coping are usually accomplishing their academic goals in school.

The four factors of the KEY support the position that when an individual relates well in school, is able to assert thoughts and feelings, feels free to invest in class activities, and confidently seeks to cope with the challenges and expectations of school, then this student may be said to possess a "good" self-concept as learner.

ADMINISTRATION

A set procedure is used. Each teacher is to complete the Florida KEY in relation to each student to be tested for learner self-concept. Each item of the KEY is rated in accordance with a 0 - 5 point scale. For example, if the student never gets along with other students (item 1) a score of 0 is given; if the student very seldom gets along with another student a score of 1 is given, etc. Students should not be rated until at least six weeks into the term or until the teacher feels that she or he knows each child on a personal basis.

TABLE I

THE FLORIDA KEY

Elementary Form Grades 1-6

This scale is to assist you, the teacher, in assessing how the student perceives his or her "learner" self. Please select one of the following answers and record the number in the blank space provided.

NEVER: 0, VERY SELDOM: 1, ONCE IN A WHILE: 2, OCCASIONALLY: 3, FAIRLY OFTEN: 4, VERY OFTEN: 5

Name of Student _____ Teacher _____ Date _____

Compared with other students of the same age, does this student:

R	1.	Get along with other students?	_____
R	2.	Get along with other teachers?	_____
R	3.	Keep calm when things go wrong?	_____
R	4.	Say good things about his/her school?	_____
R	5.	Tell the truth about his/her work?	_____
A	6.	Speak up for his/her own ideas?	_____
A	7.	Offer to speak in front of the class?	_____
A	8.	Offer to answer questions in class?	_____
A	9.	Ask meaningful questions in class?	_____
C	10.	Exhibit confidence in his/her school work?	_____
C	11.	Persist in his/her school endeavors?	_____
C	12.	Talk to others about his/her school work?	_____
C	13.	Join in school activities?	_____
I	14.	Seek out new things to do in school on his/her own?	_____
I	15.	Offer to do extracurricular work in the classroom?	_____
I	16.	Spend time helping others?	_____
I	17.	Show an interest in others' work?	_____
I	18.	Show interest in being a leader?	_____
I	19.	Initiate school projects?	_____
C	20.	Finish his/her school work?	_____
C	21.	Pay attention to class activities?	_____
C	22.	Do his/her school work carefully?	_____
I	23.	Talk to teachers about personal concerns?	_____

TOTAL _____

SCORING

The KEY is scored by assigning 0 for never, 1 very seldom, 2 once in a while, 3 occasionally, 4 fairly often, and 5 very often. Only one number is recorded for each item. Scores for the 23 items are totaled and recorded in the direction of high, moderate and low learner self-concept.

Total scores may then be sub-divided into the four components of the KEY. Hence, separate scores may be obtained for relating, asserting, investing, and coping. For example, scores for items 1, 2, 3, 4, 5 give a total for relating; 6, 7, 8, 9 for asserting; 10, 11, 12, 13, 20, 21, 22 for coping; and 14, 15, 16, 17, 18, 19, 23 for investing. These sub-divisions are also recorded in the direction of high, moderate, and low learner self-concept behavior.

INTERPRETATION OF RESULTS

Analysis of the psychometric properties of the Florida KEY, reported both in American and Australian research studies, provides an initial basis for concluding that the KEY is a useful research instrument which teachers can use with children over the full range of elementary school ages from 6-12 years. The Florida KEY is attractive because of its brevity and simplicity and can be used with ease by both experienced and inexperienced teachers.

The KEY has an acceptable level of internal consistency of 0.86 (Fahey, 1983) which compares favorably with the estimated reliability of the original version reported by Purkey, Cage, and Graves (1973). Factor analysis of the present version reveals that all items have loadings of at least 0.40 and thus are interpretable in relation to students' self-concepts as learners. If a students scores highly on the Florida KEY, it can be assumed that this person possesses a good self-concept as learner. Similarly, if the score is low, it may be assumed that the student possesses a negative self-concept as learner. High, moderate, or low learner self-concept is determined in accordance with the table below.

TABLE II

Total Score for the Florida KEY - Learner Self-Concept

Score	High	Moderate	Low
Range	81-115	35-80	0-34

The KEY is a valuable instrument in assisting the teacher to examine the positive and persistent relationship between specific aspects of a students' self-concept and success or failure at school. The four factors of the KEY - relating, asserting, investing, and coping - may also be identified by teachers and consequently used with affirming techniques to help students gain academic achievement and a positive concept of self in relation to learning. For example, low scores on any of the four factors may indicate students at risk who require the teachers' assistance. Such scoring, moderate to low, generally sensitizes the classroom teacher to the academic needs of the students as well as the need to provide activitites for developing their self-esteem. Table III outlines the range of scores high, moderate, and low for each of the four KEY factors. Examination of these components in detail will be useful, as they serve as a basis for suggesting ways in which teachers may invite students to learn.

TABLE III

Scores for the Four Components of the Florida KEY

Score Range	High	Moderate	Low
1. Relating	18-25	9-17	0-8
2. Asserting	14-20	6-13	0-5
3. Investing	25-35	11-24	0-10
4. Coping	25-35	11-24	0-10

Much of the current research in the area of self-concept theory indicates the need for teachers to encourage their students to view themselves as able, valuable, and self-directing. Both the American and Australian studies emphasize the value of the Florida KEY in determining the learner self-concept of students in elementary schools. The KEY gives support for the position that when an individual relates well in school, is able to assert feelings, feels free to invest in class activity, and can reasonably cope with the challenges and expectations of school, then this person may be said to possess a good self-concept as learner.

TECHNICAL INFORMATION

In 1973, all pupils in the 5th and 6th grades (N=180) of an elementary school in north central Florida, and all pupils in Quads 5 and 6 of an experimental elementary school in northeast Florida (N=155) were asked to rate themselves on the Short Form of the Coopersmith Self-Esteem Inventory (Coopersmith, 1967) which relies on self-report. Their teachers were asked to complete the Florida KEY for each pupil completing the Coopersmith Self-Esteem Inventory. A total of 335 pupils in the two elementary schools yielded twenty-five professed self-esteem statements as elicited by the Coopersmith Self-Esteem Inventory. Three-hundred fifty-seven Florida KEY ratings were obtained on the same population, as more than one teacher rated several children.

Concurrently, a validity study was done with Oklahoma teachers enrolled in a graduate course. These teachers were asked to rate their pupils on the dimensions of relating, asserting, coping, and investing. The teachers had not been exposed to the Florida KEY, and their ratings were to be subjective evaluations of placement of children on these dimensions based on school performance. The meaning of each dimension was presented in a manner to avoid terms and behaviors found in the KEY. One week later they completed the KEY on the same children using an unlabelled form of the instrument. Teachers were not informed of any relationship

between the two instruments and conditions minimized any connections drawn between the tasks. Among this group, four teachers were identified who were working in an appropriate grade range (3rd grade to 6th grade) for the analyses. These four teachers each rated 20 to 25 students.

Later in 1973 a second validity study was conducted at a university laboratory school in Florida. Teachers who had used the Florida KEY to assess learner self-concept of their students in kindergarten through eighth grade were asked to choose five students who, "in your judgment feel best about themselves as learners." The teachers were also asked to consider, when making their choice, whether the student had a "positive attitude toward school and willingness to participate in classroom activities" and were advised that "these students may not necessarily be the best students academically." Teachers were also asked to choose the five students at the opposite end of the continuum, i.e., those who "feel badly about themselves as learners" and "have negative attitudes toward school." This categorization of students by the teachers was done six weeks following their use of the Florida KEY.

Through use of these data, items were standardized within each teacher's ratings and were factor analyzed by a principal axes solution, rotated to the varimax criterion. Four factors were identified which accounted for 71 percent of the total score variance and 92 percent of the common factor variance. These four factors were labelled: (1) Relating, (2) Asserting, (3) Investing, and (4) Coping.

In addition, three teachers were identified who had rated the same eleven students. An index of reliability of 0.84 was obtained through use of an analysis of variance procedure (Kerlinger, 1973). Coefficients of reliability employing the split-halves procedure were determined for all teachers. These coefficients ranged from 0.62 to 0.92. A split-halves estimate of reliability of total score across all teachers was found to be 0.93.

Teacher listings were compared with Florida KEY scores. In separate analyses for each teacher, of sixteen correlation coefficients produced ranging from 0.40 to 0.79, only two were not significant at the 0.01 level (one was significant at the 0.02 level, the other at the 0.10 level). The average correlation (using Fisher's transformation) was 0.62.

In another validation study done in 1973, twenty-seven elementary teachers each chose five students as "feeling best about themselves as learners" and five who "felt badly about themselves as learners." The mean factor score in the four Florida KEY factors for each of the two groups was used to determine a point-biserial correlation coefficient. The mean total score was also calculated for each of the two groups, and a point-biserial coefficient was obtained. These coefficients ranged from 0.57 (relating) to 0.71 (coping), with the correlation for total score being 0.68, all of which were significant at the 0.01 level. (See Table IV.)

In 1979 a survey was conducted of all persons who had requested copies of the KEY. The survey requested information as to the KEY's use, appropriateness of items to the general elementary school population and suggestions for additional items. From a response of 47 survey forms a slightly revised instrument of 23 items was developed and field tested with 25 elementary teachers in Mississippi. An item analysis and a validity and reliability study was conducted on the instrument. Two items "look people in the eye" and "read in class" were deleted from the instrument. Seven items "exhibit confidence in his/her school work", "persist in his/her school endeavors", "spend time helping others", "show an interest in others' work", "show interest in being a leader", "initiate school projects" and "talk to teachers about personal concerns" were added to the instrument.

TABLE IV

Rotated Factor Loadings for Florida KEY

(Values below 0.400 omitted)

Item	I Relating	II Asserting	III Investing	IV Coping
1	0.732			
2	0.731			
3	0.712			
4	0.617			
5	0.616			
6		0.803		
7		0.772		
8		0.766		
9		0.725		
10		0.604		
11		0.565		
12		0.533		
13			0.524	
14			0.448	
15				0.717
16				0.617
17				0.613
18				0.612

The revised 23-item instrument was used in an extensive Australian study of middle school pupils by Fahey (1983). A copy of the revised instrument with the item factor clusters is given in Table I. While the reliability and validity of the Florida KEY have been established in United States samples, it was considered appropriate to confirm reliability and validity of the Florida KEY in the Australian study.

A sample of 1,000 elementary students (462 males, 538 females) randomly selected from government and non-government schools in the Sydney Metropolitan Area completed the Middle Childhood Self-Concept Questionnaire, a self-report scale designed to measure self-concept. As a means of validating this test and to examine the students' self-concepts in a specific situation within the classroom, the students' teachers were requested to make inferences about their pupils' self-concepts in relation to learning. For this purpose 212 teachers were requested to use the Florida KEY. The principals and the teachers were individually given a brief explanation of the KEY as none of the Australian teachers or administrators had any previous experience with it. The results follow.

Reliability Analysis for the Florida KEY - Australian Study

The reliability analysis for the scale and for the four variables viz: relating, asserting, investing, and coping within the scale were assessed. For the total sample alpha was 0.90, a very highly significant estimate of reliability.

1. Relating. The first five questions relate to the subjects' positive relationships in the actual classroom. The alpha for these items is 0.82 and these five items showed a high correlation from 0.78 to 0.79.
2. Asserting. Asserting is demonstrated by the students' assertive behavior in socially acceptable ways in the classroom. Four questions made up this section of the KEY which had a somewhat similar alpha as relating, alpha=0.81. Item correlation is also similar being 0.78 to 0.79.

3. Investing. This component in a sense is contrary to self-doubt and relates to the creative part of self-concept as learner. The student is considered to be willing and confident to trust self and try new things. The seven items have an alpha=0.81 which is the same coefficient as asserting. The item correlation varies from 0.77 to 0.79.

4. Coping. The seven items relating to the student's ability to copy or achieve in school has the lowest alpha, which is .60. The item correlation for coping lies between 0.50 to 0.70. With Cronbach's alphas, .90 for the total test and the alphas ranging from 0.81 to 0.61 on the four factors within the KEY the estimates provide ample evidence of reliability for the scale which infers self-concept as learner. These results also compare favorably with an index of reliability of 0.84 obtained by the authors through use of an analysis of variance procedure (Kerlinger, 1973).

Factor Structure of the Florida KEY

The scores were intercorrelated across the twenty-three items and the resulting matrix was factor analyzed using the principal factor procedures with iterations (the PA2 solution in Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975). In the present solution, the four-factor solution was substantially the same as the authors' original report (Purkey, Cage, & Graves, 1973). An oblique factor pattern matrix after rotation with Kaiser normalization 1/4 = 0 detailed the item behaviors relating to the students' self-concept as learners.

After rotation, the factors were easily interpreted and a four-factor solution is summarized below.

TABLE V

Four Factor Solution - Florida KEY

Factor	Label	Eigen Value	Percentage of Variance	Cumulative Percentage
1	Coping	7.156	71.1	71.1
2	Relating	1.262	12.5	83.6
3	Investing	0.970	9.6	93.2
4	Asserting	0.680	6.8	100.0

Factor 1 - Coping. The first varimax rotated factor was labelled as coping and had loadings as high as 0.69, with the lowest loading being 0.45. The items in this factor did not correspond closely to the original structure but nevertheless the items were concerned with coping with school work and class activities. For example, -persists in his/her school endeavors--had a loading of 0.60, while the item relating to finishing work had a loading of 0.60.

Factor 2 - Relating contained exactly the same items as the original relating factor interpreted by the authors. The item loadings were as high as 0.76 and 0.68 and described how well students related to their peers and teachers.

Factor 3 - Investing contained items identical with Purkey and his associates' investing factor. One additional item loaded within this factor which is accurately interpreted as investing. This item refers to the students' investing time in discussing their personal concerns with their teachers and has a loading of 0.40. Seven items fell into this factor and teachers showed particular interest in them. Like the authors, many teachers expressed the belief that these questions on the scale related to the creative aspect of the students' self-concepts as learners. The item with the highest loading was -initiate school projects (0.73). Other high

loadings (in order of loadings) are: spend time helping others (0.67), show an interest in other works (0.60), offer to do extracurricular (0.55), seek out new things to do in school on his/her own (0.40), talk to teacher about personal concerns (0.40).

Factor 4 - Asserting contains four of the original items concerned with assertive behavior. Assertive behavior as the student's affirmation of his or her rights was expressed in the four following items: offer to speak in front of the class (0.71), speak up for his/her own ideas (0.64), offer to answer questions in class (0.41), and ask meaningful questions (0.41).

On the basis of the results from the Florida KEY obtained from 212 Australian teachers and 1,000 students, the correlation between the Middle Childhood Self-Concept Questionnaire and the Florida KEY was high. The correlations between this self-report and the Florida KEY are detailed in the table below.

TABLE VI

Correlations Between Self-Concept Test and the Florida KEY

Elementary Schools	Classes (Grades)	N	Correlation - Pearson r
1. State	3-6	640	0.94
2. Catholic	3-6	240	0.96
3. Independent	3-6	120	0.98
Total Sample	3-6	1,000	0.96

Mean Scores and Standard Deviations

The mean scores and standard deviations of the Florida KEY total scores were very similar to the means and standard deviations on the total Questionnaire

scores. Both tests have similar mean scores of 93.0 with a standard deviation of 2.5.

Homogeneous grouping

A multiple range test was applied to the Florida KEY scale to investigate the homogeneous subsets of school groups in the differing status areas (Newman-Keuls Procedure ranges from the 0.50 level). Results indicated that the higher mean scores were invariably related to several of the schools who emphasized a humanistic approach and implemented school curricula techniques for self affirmation training.

Sex Differences

A two-way Anova was used to test the effects of subjects' sex and teachers' sex on the total scores for the Florida KEY. The main effect of subject's sex was not statistically significant ($F\ [1,996] = 1.59$). The main effect of teacher sex was not significant ($F\ [1,996] = 0.04$) and their interaction was also non-significant ($F\ [1,996] = 2.89$).

A similar statistical procedure was used to test the effects of subjects' sex and teachers' sex in relation to each of the four factors within the scale. The results showed there were no main effects due to either the subjects' sex, or teachers' sex in relation to the factors--investing and relating to peers and teachers. However, for the other two factors, namely asserting and coping with school work and activities, there is a slight effect due to the sex (male) of teachers. Asserting ($F = 4.23$, df 996, $p < 0.05$; coping $F = 5.29$, df 996, $p < 0.01$).

STUDIES USING THE FLORIDA KEY

From 1973 to the present, the KEY has been used to investigate self-concept as learner of various groups of school students. Branch, Purkey, and Damico (1976) used the KEY with students of four middle schools in Florida to determine whether

significant differences existed between disruptive and nondisruptive students. Analyses revealed significant differences, with disruptive students scoring significantly lower on all four factor of the KEY.

Damico and Purkey (1978) used the KEY in an unusual study, to investigate the "class clown" phenomenon. From a sample of 3,500 eighth grade students, 96 class clowns were identified by peers on a sociometric form. These students were compared to a randomly selected sample of 237 nonclown classmates on a variety of measures including the KEY. Although there were no significant differences between clowns and nonclowns on the KEY total score, significant differences did appear on two KEY factors--asserting and coping. Clowns scored significantly higher than nonclowns on asserting, and significantly lower on coping. To date, the Damico and Purkey investigation of class clowns is the only available study of this particular group of students.

Weeden (1984) used the Florida KEY in a study of the effects of a contrived treatment program on the self-concept of seventh and eighth grade students. The KEY differentiated between the experimental and control groups on the asserting and coping factors and the total score favoring the experimental group ($p \leq 0.05$). The Piers-Harris Self-concept Instrument was used as a self-report and showed the same findings.

THE AUTHORS

William Watson Purkey is Professor of Counselor Education in the School of Education at the University of North Carolina at Greensboro. His professional experience includes teaching as a public school teacher, as an instructor in the United States Air Force, and as a university professor. Dr. Purkey has written over 80 articles and authored or co-authored four books, including Self Concept and School Achievement, now in its 18th printing. His latest book, co-authored with John Novak and published in 1984, is Inviting School Success, Second Edition.

Bob N. Cage is Professor of Educational Administration and Director, Bureau of Educational Research at The University of Mississippi. He has been a classroom teacher of mathematics in junior and senior high schools and has taught mathematics, statistics and research methods at the university undergraduate and graduate levels. He is the author of many research articles and an elementary statistics textbook used at the graduate school level. He has directed several dissertations which have used the Florida KEY.

Mary Fahey received her doctorate in Educational Psychology at the University of New South Wales. She is a Sister of Charity who has been a teacher, principal, a supervisor of schools and a consultant to Catholic Education where she designed and implemented a Leadership Program for educational administrators. She has written and lectured extensively on self-concept and leadership in educational administration at the University of New South Wales, as a consultant in educational and organizational development seminars pertaining to the building of positive self images for parents, teachers, and students.

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